Jan. 12, 1972

QUARTERLY REPORT FOR ACME COMPUTING FACILITY FOR STANFORD UNIVERSITY COMPUTER FACILITIES COMMITTEE

Major Events of Quarter Ending December 31, 1971

In November, ACME replaced 2 million bytes of IBM 8 microsecond bulk core with Ampex 2.5 microsecond core. This change has roughly doubled the computing capacity of the ACME System and markedly improved response time. In December ACME replaced 466 megabytes of IBM disk storage with Ampex disk storage. The average file access time of Ampex disk is twice as fast as the IBM hardware. ACME's annual equipment rental costs have been increased by approximately $10,000 as a result of these changes. IBM hardware now accounts for slightly more than one-half of the total hardware rent for ACME.

System programming efforts in the last quarter resulted in a significant expansion of the text editing features in the ACME System, addition of realtime support permitting continuous data collection on the IBM 1800 disk, improved tape handling services, dynamic array allocation, and new file protection services. In addition, a new routine permitting plots to be run on the high speed printer was announced and support for Loma Linda graphics terminals was provided.

In October, Gio Wiederhold was named manager of ACME User Services. Mr. Wiederhold designed and implemented the PL/ACME System in the period 1965 through 1968. Four introductory PL/ACME programming courses have been conducted with 10 to 12 participants in each class.

Considerable engineering effort has been spent on design and development of a new multiplexor which will serve as a small machine connection to ACME. The hardware will accommodate up to 16 small machines which can serially transmit data to or from ACME.

The ACME Facility Director has devoted much of his time to planning efforts on the following topics: ACME/Campus merger; Hospital ADP/ACME cooperation; hardware alternatives for future ACME service; and potential computing income in the medical community at Stanford. Active support was provided to the Division of Cardiology on a computer training grant proposal and site review. In addition, a large amount of support was provided to the Drug Interaction Program in order to select hardware for exportable small systems.

Plans and New Projects to be Undertaken

In January, the ACME staff will review the pros and cons of substituting a Memorex 1270 terminal control unit for the IBM 2702. This hardware substitution, if found to be technically feasible, would provide better service to ACME users at less cost.

In February the small machine multiplexor will be mounted on the ACME System and tested. In addition, the Systems Group will complete preliminary design of a small machine support system. Support for the DENDRAL project will be planned in detail during this coming quarter. DENDRAL is the spectroscopy research project headed by Drs. Lederberg, Djerassi, and Feigenbaum. Systems effort required for alphanumeric CRT support will be outlined.

The planning function will take progressively more time of the Facility Director. Dr. Clayton Rich has appointed a Computer Policy Group for the Medical Center which will consider a potential merger of Hospital Administrative Data Processing with the ACME Computing Facility. The level and source of staff support for this study have not been identified.

RDJ/ma